

## INTEGRATED THERMOELECTRIC MODULE

### ABSTRACT

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An integrated thermoelectric module is formed of a set of thermoelectric elements, consisting of N type and P type conductor and/or semiconductor elements electrically connected in series and thermally connected in parallel, the thermoelectric elements being  
10 electrically connected in series and/or in parallel and thermally connected in parallel and being assembled on flexible supports of polymeric material, capable of electrically isolating said circuit, but having a high thermal conductivity efficiency. Each support is connected to a heat exchanger by means of connection materials  
15 having low thermal impedance allowing optimum connection even at low adhesion pressures. The thermoelectric elements are distributed in its interior part so as to geometrically harmonize heat transferred from the integrated thermoelectric module with heat exchanged by the heat exchangers, thus making the temperature distribution on  
20 said heat exchangers as uniform as possible, in order to maximize the efficiency of the integrated thermoelectric module.